

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method, ~~for constructing a data packet having both a payload segment that carries data associated with a link layer (MAC) or network layer (IP) address and a header segment that has one or more fields, the method comprising:~~
generating an address value for a data packet comprising a payload segment including data of a multicast data stream associated with a link layer (MAC) or network layer (IP) address and a header segment including one or more fields, the address value being based on the IP or MAC address;
formatting the address value; and
populating the formatted address value into a field of the header that will be used as a selection criteria ~~by that allows a receiving terminal to associate the data packet with the multicast data stream without a table that links the data packet to the multicast data stream.~~
2. (Original) The method according to claim 1 wherein the data packet is a multicast or unicast packet.
3. (Original) The method according to claim 1 wherein the IP or MAC address is a multicast or unicast address.
4. (Original) The method according to claim 3 wherein the packet is part of a Motion Picture Expert Group – level 2 (MPEG2) transport stream; the field that will be used as selection criteria comprises a one bit flag preceding the address value, the 12 least significant bits of the IP or MAC address of the payload.
5. (Original) The method according to claim 1 wherein the address value is formatted in accordance with a protocol.

6. (Original) The method according to claim 5 wherein the protocol is MPEG2.
7. (Original) The method according to claim 1 wherein the selection criteria comprises a subset of the IP or MAC address.
8. (Original) The method according to claim 1 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a bitwise logic function.
9. (Original) The method according to claim 1 wherein the IP or MAC address, or a subset thereof, has been operated upon by a hashing function.
10. (Original) The method according to claim 1 wherein the addition of a flag to indicate that the packet is part of a multicast data stream formats the address value.
11. (Currently Amended) ~~An article of manufacture for constructing a data packet having both a payload segment that carries data associated with a link layer (MAC) or network layer (IP) address and a header segment that has one or more fields, the article of manufacture~~ A computer program product comprising computer executable program code recorded on a computer readable storage medium, the computer executable program code comprising:
 - a computer readable medium including instructions for:
 - code configured to ~~generating~~ generate an address value for constructing a data packet comprising a payload segment including data of a multicast data stream associated with a link layer (MAC) or network layer (IP) address and a header segment including one or more fields, the address value being based on the IP or MAC address;
 - code configured to ~~formatting~~ format the address value; and
 - code configured to ~~populating~~ populate the formatted address value into a field of the header that will be used as a selection criteria ~~by that allows~~ a receiving terminal to associate the data packet with the multicast data stream without a table that links the data packet to the multicast data stream.

12. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 11 wherein the data packet is a multicast or unicast packet.
13. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 11 wherein the IP or MAC address is a multicast or unicast address.
14. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 13 wherein the packet is part of a Motion Picture Expert Group – level 2 (MPEG2) transport stream; the field that will be used as selection criteria comprises a one bit flag preceding the address value, the 12 least significant bits of the IP or MAC address of the payload.
15. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 11 wherein the address value is formatted in accordance with a protocol.
16. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 15 wherein the protocol is MPEG2.
17. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 11 wherein the selection criteria comprises a subset of the IP or MAC address.
18. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 11 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a bitwise logic function.
19. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 11 wherein the IP or MAC address, or a subset thereof, has been operated upon by a hashing function.

20. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 11 wherein the addition of a flag to indicate that the packet is part of a multicast data stream formats the address value.
21. (Currently Amended) An apparatus, ~~for constructing a data packet having both a payload segment that carries data associated with an IP or MAC address and a header segment that has one or more fields, the apparatus~~ comprising:
- a memory device storing a program;
 - a processor in communication with said memory device;
 - said processor operative with said program to:
 - generate an address value for constructing a data packet comprising a payload segment including data of a multicast data stream associated with a link layer (MAC) or network layer (IP) address and a header segment including one or more fields, the address value being based on the IP or MAC address;
 - format the address value; and
 - populate the formatted address value into a field of the header that will be used as a selection criteria by that allows a receiving terminal to associate the data packet with the multicast data stream without a table that links the data packet to the multicast data stream.
22. (Original) The apparatus according to claim 21 wherein the data packet is a multicast or unicast data packet.
23. (Original) The apparatus according to claim 21 wherein the IP or MAC address is a multicast address.
24. (Original) The apparatus according to claim 23 wherein the packet is part of a Motion Picture Expert Group – level 2 (MPEG2) transport stream; the field that serves as selection criteria comprises a one bit flag preceding the address value, the 12 least significant bits of the IP or MAC address of the payload.

25. (Original) The apparatus according to claim 21 wherein the address value is formatted in accordance with a protocol.
26. (Original) The apparatus according to claim 25 wherein the protocol is MPEG2.
27. (Original) The apparatus according to claim 21 wherein the selection criteria comprises a subset of the IP or MAC address.
28. (Original) The apparatus according to claim 21 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a bitwise logic function.
29. (Original) The apparatus according to claim 21 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a hashing function.
30. (Original) The apparatus according to claim 21 wherein the addition of a flag to indicate that the packet is part of a multicast data stream formats the address value.
31. (Original) The apparatus according to claim 21 wherein the apparatus is a wireless handheld terminal.
32. (Currently Amended) A method, ~~for selecting a desired data packet from a plurality of data packets, where each packet is associated with an IP or MAC address, the method~~ comprising:
generating an expected value for a field in the header based on ~~the an~~ an IP or MAC address corresponding to a data packet to be selected from a plurality of incoming data packets, where wherein said field is used as selection criteria; and
examining the field used as selection criteria in ~~each packet of a plurality of an~~ incoming packets data packet without using a table linking the incoming data packet to a multicast data stream so as in order to identify the data packets packet that contain contains the expected value.

33. (Original) The method according to claim 32 wherein the data packet is a multicast or unicast packet.
34. (Original) The method according to claim 32 wherein the IP or MAC address is a multicast or unicast address.
35. (Original) The method according to claim 32 wherein the IP or MAC address is determined from a table.
36. (Original) The method according to claim 32 wherein the anticipated address value is determined solely from the IP or MAC address of the desired data stream.
37. (Original) The method according to claim 32 wherein the selection criteria comprises a subset of the IP or MAC address.
38. (Original) The method according to claim 32 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a bitwise logic function.
39. (Original) The method according to claim 32 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a hashing function.
40. (Original) The method according to claim 32 wherein a flag value indicates that the packet is part of a multicast data stream.
41. (Original) The method according to claim 32 wherein the packet is part of a Motion Picture Expert Group - level 2 (MPEG2) transport stream; the field that will be used as selection criteria is a one bit flag preceding the 12 least significant bits of the IP or MAC address of the payload.
42. (Currently Amended) ~~An article of manufacture for selecting a desired data packet from a plurality of data packets, where each packet is associated with an IP or MAC address;~~

~~the article of manufacture~~ A computer program product comprising computer executable program code recorded on a computer readable storage medium, the computer executable program code comprising:

a computer readable medium including instructions for:

code configured to generating generate an expected value for a field in the an IP or MAC address corresponding to a data packet to be selected from a plurality of incoming data packets, where wherein said field is used as selection criteria; and

code configured to examining examine the field used as selection criteria in each packet of a plurality of an incoming packets data packet without using a table linking the data packet to a multicast data stream so as in order to identify the data packets packet that contain contains the expected value.

43. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 42 wherein the data packet is a multicast or unicast packet.
44. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 42 wherein the IP or MAC address is a multicast or unicast address.
45. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 42 wherein the IP or MAC address is determined from a table.
46. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 42 wherein the anticipated address value is determined solely from the IP or MAC address of the desired data stream.
47. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 42 wherein the selection criteria comprises a subset of the IP or MAC address.
48. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 42 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a bitwise logic function.

49. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 42 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a hashing function.
50. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 42 wherein a flag value indicates that the packet is part of a multicast data stream.
51. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 42 wherein the packet is part of a Motion Picture Expert Group - level 2 (MPEG2) transport stream; the field that will be used as selection criteria is a one bit flag preceding the 12 least significant bits of the IP or MAC address of the payload.
52. (Currently Amended) An apparatus, ~~for selecting a desired data packet from a plurality of data packets, where each packet is associated with an IP or MAC address, the~~ apparatus comprising:
a memory device storing a program;
a processor in communication with said memory device;
said processor operative with said program to:
generate an expected value for a field in ~~the an~~ IP or MAC address
corresponding to a data packet to be selected from a plurality of incoming data packets, where wherein said field is used as selection criteria; and
examine the field used as selection criteria in ~~each packet of a plurality of an incoming packets~~ data packet without using a table linking the data packet to a multicast data stream so as in order to identify the data packets packet that contain contains the expected value.
53. (Original) The apparatus according to claim 52 wherein the data packet is a multicast or unicast packet.

- 54. (Original) The apparatus according to claim 52 wherein the IP or MAC address is a multicast or unicast address.
- 55. (Original) The apparatus according to claim 52 wherein the IP or MAC address is determined from a table.
- 56. (Original) The apparatus according to claim 52 wherein the anticipated address value is determined solely from the IP or MAC address of the desired data stream.
- 57. (Original) The apparatus according to claim 52 wherein the selection criteria comprises a subset of the IP or MAC address.
- 58. (Original) The apparatus according to claim 52 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a bitwise logic function.
- 59. (Original) The apparatus according to claim 52 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a hashing function.
- 60. (Original) The apparatus according to claim 52 wherein a flag value indicates that the packet is part of a multicast data stream.
- 61. (Original) The apparatus according to claim 52 wherein the packet is part of a Motion Picture Expert Group - level 2 (MPEG2) transport stream; the field that is used as selection criteria is a one bit flag preceding the 12 least significant bits of the IP or MAC address of the payload.
- 62. (Original) The apparatus according to claim 52 wherein the apparatus is a wireless handheld terminal.

63. (Currently Amended) A method, ~~for constructing a multicast data packet, said packet having both a payload segment that carries data associated with an IP or MAC address and a header segment that has one or more fields, the method comprising:~~
generating an address value based on IP or MAC address data associated with a payload segment of a multicast data packet based on the IP or MAC address for the payload;
generating a status value to identify the multicast data packet as part of a multicast data stream; and
populating the address value and the status value into a ~~field of the header segment of the multicast data packet~~ that will be used as selection criteria by that allows a receiving terminals terminal to associate the multicast data packet with the multicast data stream without a table that links the data packet to the multicast data stream.
64. (Original) The method according to claim 63 wherein the IP or MAC address is a multicast address.
65. (Original) The method according to claim 63 wherein the packet is part of a Motion Picture Expert Group – level 2 (MPEG2) transport stream; the field that is used as selection criteria comprises a one bit flag preceding the address value, the 12 least significant bits of the IP or MAC address of the payload.
66. (Original) The method according to claim 63 wherein the address value is formatted in accordance with a protocol.
67. (Original) The method according to claim 66 wherein the protocol is MPEG2.
68. (Original) The method according to claim 63 wherein the selection criteria comprises a subset of the IP or MAC address.
69. (Original) The method according to claim 63 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a bitwise logic function.

70. (Original) The method according to claim 63 wherein the IP or MAC address, or a subset thereof, has been operated upon by a hashing function.
71. (Currently Amended) ~~An article of manufacture for selecting a desired data packet from a plurality of data packets, where each packet is associated with an IP or MAC address, the article of manufacture~~ A computer program product comprising computer executable program code recorded on a computer readable storage medium, the computer executable program code comprising:
a computer readable medium including instructions for:
code configured to generating generate an address value based on IP or MAC address data associated with a payload segment of a multicast data packet based on the IP or MAC address for the payload;
code configured to generating generate a status value to identify the multicast data packet as part of a multicast data stream; and
code configured to populating populate the address value and the status value into a field of the header segment of the multicast data packet that will be used as selection criteria by that allows a receiving terminals terminal to associate the multicast data packet with the multicast data stream without a table that links the data packet to the multicast data stream.
72. (Currently Amended) ~~The article of manufacture~~ computer program product according to claim 71 wherein the IP or MAC address is a multicast address.
73. (Currently Amended) ~~The article of manufacture~~ computer program product according to claim 71 wherein the packet is part of a Motion Picture Expert Group – level 2 (MPEG2) transport stream; the field that is used as selection criteria comprises a one bit flag preceding the address value, the 12 least significant bits of the IP or MAC address of the payload.

74. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 71 wherein the address value is formatted in accordance with a protocol.
75. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 74 wherein the protocol is MPEG2.
76. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 71 wherein the selection criteria comprises a subset of the IP or MAC address.
77. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 71 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a bitwise logic function.
78. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 71 wherein the IP or MAC address, or a subset thereof, has been operated upon by a hashing function.
79. (Currently Amended) An apparatus ~~for constructing multicast data packets, said packet having both a payload segment that carries data associated with an IP or MAC address and a header segment that has one or more fields, including a field used as selection criteria by receiving terminals, the apparatus~~ comprising:
a memory device storing a program;
a processor in communication with said memory device;
said processor operative with said program to:
generate an address value based on IP or MAC address data associated with a payload segment of a multicast data packet based on the IP or MAC address for the payload;
generate a status value to identify the multicast data packet as part of a multicast data stream; and
populate the address value and the status value into a ~~field of the header segment of the multicast data packet~~ that will be used as selection criteria ~~by that~~

allows a receiving ~~terminal~~ terminal to associate the multicast data packet with the multicast data stream without a table that links the multicast data packet to the multicast data stream.

80. (Original) The apparatus according to claim 79 wherein the IP or MAC address is a multicast address.
81. (Original) The apparatus according to claim 79 wherein the packet is part of a Motion Picture Expert Group – level 2 (MPEG2) transport stream; the field that is used as selection criteria comprises a one bit flag preceding the address value, the 12 least significant bits of the IP or MAC address of the payload.
82. (Original) The apparatus according to claim 79 wherein the address value is formatted in accordance with a protocol.
83. (Original) The apparatus according to claim 79 wherein the protocol is MPEG2.
84. (Original) The apparatus according to claim 79 wherein the selection criteria comprises a subset of the IP or MAC address.
85. (Original) The apparatus according to claim 79 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a bitwise logic function.
86. (Original) The apparatus according to claim 79 wherein the IP or MAC address, or a subset thereof, has been operated upon by a hashing function.
87. (Original) The apparatus according to claim 79 wherein the apparatus comprises a wireless handheld terminal.

88. (Currently Amended) A method, ~~for selecting a multicast desired data packet from a plurality of data packets, where each packet is associated with an IP or MAC address and possesses a field used as selection criteria, the method comprising:~~
generating an address value corresponding to a desired multicast data packet
based on ~~the~~ an IP or MAC address ~~for the~~ associated with a payload of the desired multicast data packet;
generating a status value to represent that the desired multicast data packet is part of a multicast data stream; and
examining ~~the field used as~~ if a selection criteria field in an incoming multicast data packet ~~incoming packets for packets that contain~~ contains the expected arrangement ~~of the~~ address value and the status value without using a table linking the desired multicast data packet to the multicast data stream.
89. (Original) The method according to claim 88 wherein the IP or MAC address is determined from a table.
90. (Original) The method according to claim 88 wherein the anticipated address value is determined solely from the IP or MAC address of the desired data stream.
91. (Original) The method according to claim 88 wherein the selection criteria comprises a subset of the IP or MAC address.
92. (Original) The method according to claim 88 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a bitwise logic function.
93. (Original) The method according to claim 88 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a hashing function.
94. (Original) The method according to claim 88 wherein the packet is part of a Motion Picture Expert Group - level 2 (MPEG2) transport stream; the field that serves as

selection criteria is a one bit flag preceding the 12 least significant bits of the IP or MAC address of the payload.

95. ~~An article of manufacture for selecting a desired data packet from a plurality of data packets, where each packet is associated with an IP or MAC address, the article of manufacture~~ A computer program product comprising computer executable program code recorded on a computer readable storage medium, the computer executable program code comprising:

a computer readable medium including instructions for:

code configured to generating generate an address value corresponding to a desired multicast data packet based on the an IP or MAC address for the associated with a payload of the desired multicast data packet;

code configured to generating generate a status value to represent that the desired multicast data packet is part of a multicast data stream; and

code configured to examining examine the field used as if a selection criteria field in an incoming multicast data packet incoming packets for packets that contain contains the expected arrangement of the address value and the status value without using a table linking the desired multicast data packet to the multicast data stream.

96. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 95 wherein the IP or MAC address is determined from a table.
97. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 95 wherein the anticipated address value is determined solely from the IP or MAC address of the desired data stream.
98. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 95 wherein the selection criteria comprises a subset of the IP or MAC address.

99. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 95 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a bitwise logic function.
100. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 95 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a hashing function.
101. (Currently Amended) The ~~article of manufacture~~ computer program product according to claim 95 wherein the packet is part of a Motion Picture Expert Group - level 2 (MPEG2) transport stream; the field that serves as selection criteria is a one bit flag preceding the 12 least significant bits of the IP or MAC address of the payload.
102. (Currently Amended) An apparatus, ~~for selecting a desired multicast data packet from a plurality of data packets, where each packet is associated with an IP or MAC address and possesses a field used as selection criteria, the apparatus comprising:~~
a memory device storing a program;
a processor in communication with said memory device;
said processor operative with said program to:
generate an address value corresponding to a desired multicast data packet
based on ~~the an~~ IP or MAC address ~~for the~~ associated with a payload of the
desired multicast data packet;
generate a status value to represent that the desired multicast data packet is
part of a multicast data stream; and
examine ~~the field used as~~ if a selection criteria field in an incoming data
packet ~~incoming packets for packets that contain~~ contains the expected
~~arrangement of the~~ address value and the status value without using a table
linking the desired multicast data packet to the multicast data stream.
103. (Original) The apparatus according to claim 102 wherein the IP or MAC address is determined from a table.

104. (Original) The apparatus according to claim 102 wherein the anticipated address value is determined solely from the IP or MAC address of the desired data stream.
105. (Original) The apparatus according to claim 102 wherein the selection criteria comprises a subset of the IP or MAC address.
106. (Original) The apparatus according to claim 102 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a bitwise logic function.
107. (Original) The apparatus according to claim 102 wherein the selection criteria comprises a subset of the IP or MAC address that has been operated upon by a hashing function.
108. (Original) The apparatus according to claim 102 wherein the packet is part of a Motion Picture Expert Group - level 2 (MPEG2) transport stream; the field that serves as selection criteria is a one bit flag preceding the 12 least significant bits of the IP or MAC address of the payload.
109. (Currently Amended) A method, ~~for transmitting data on a distributed (internet-type) network utilizing MPEG2 packets, each packet known to contain a 13-bit field identified as a packet identification (PID) field, the network having one or more receiving entities and one or more transmitting entities, the method comprising:~~
populating the first bit of ~~the~~ a 13-bit Packet Identification (PID) field in an MPEG2 packet with a bit to indicate that the packet contains multicast data;
populating the remaining 12 bits of the PID field with the 12 least significant bits of ~~the~~ an IP or MAC address for the data the ~~pack~~ packet carries; and
constructing the remainder of the packet.

110. (Currently Amended) A method, ~~for selecting a desired data packet from a plurality of MPEG2 data packets, each packet known to contain a 13-bit field identified as a packet identification (PID) field, the selection to be based said field, the method comprising:~~
examining the a 13-bit Packet Identification (PID) field in an incoming MPEG2 data packet at the a network interface hardware layer,
bringing into the protocol stack selecting all packets the incoming MPEG2 data packet from the plurality of data packets without a table linking the PID field to a multicast data stream, that have a the PID field being characterized by:
a first bit flag indicating that ~~it~~ the incoming MPEG2 data packet does not carry a multicast program; or
a first bit flag indicating that the incoming MPEG2 data packet is part of a multicast program ~~is carried by the packet~~ and the remainder of the PID contains the 12 least significant bits ~~of the~~ corresponding to an IP or MAC address ~~for the data associated with the desired multicast data stream, packet will carry.~~
111. (Currently Amended) The method according to claim 1 wherein the selection criteria is based only on a formatted address value.
112. (Canceled)